WHAT IS CLAIMED IS:

1. An optical switch for switching data in a network comprising:

a housing;

a transmitter receiver means which transmits to or receives from the network the data, the transmitter receiver means disposed in the housing;

a first optical path forming a first closed optical loop along which the data flows in a first direction; and

a second optical path forming a second closed optical loop along which the data flows in a second direction, the second direction being opposite the first direction, the first and second optical paths each having a portion in which the transmitter receiver means is inserted into or removed from the first and second optical paths without disruption of switching of data by the switch.

2. A switch as described in Claim 1 wherein the portion includes hinges/slides and an integral break/lock which fits into the hinges/slides.

3. A switch as described in Claim 2 wherein the portion includes sides and includes feeds on each side to which the first and second paths connect, the feeds are movable to be spread apart or closed together to allow the integral break/lock or the transmitter receiver means to be inserted or removed from the first and second optical paths.

4. A switch as described in Claim 3 wherein each feed has one of the hinges/slides.

5. A switch as described in Claim 4 wherein each feed has a spring to which it is mounted, the spring is attached to the housing against which the feed is spread and then forced back.

6. A switch as described in Claim 5 wherein the transmitter receiver means includes a printed circuit board assembly having a transmitter and receiver for transmitting and receiving the data.

7. A switch as described in Claim 6 wherein the board has locator pins which align the board into proper placement into the housing so the transmitter and receiver communicate with the first and second optical paths and the first and second optical paths extend through the board.

8. A switch as described in Claim 7 wherein the board includes unload/load slides on each side of the board which fit into the hinges/slides on each feed.

9. A switch as described in Claim 8 wherein the first optical path includes a first optical fiber, the second optical path includes a second optical fiber, the board includes a first optical fiber segment and a second optical fiber segment which align with the first optical fiber and the second optical fiber, respectively, when the board is in place in the housing, and the integral break/lock has a third optical fiber segment and a fourth optical fiber segment which aligns with the first optical fiber and the second optical fiber, respectively, when the integral break/lock is in place in the housing.

10. A switch as described in Claim 9 including an optical gel placed at connection points between the first optical fiber and the first optical fiber segment and the second optical fiber and the second optical fiber segment.

11. A switch as described in Claim 10 wherein the board includes a fiber mirror and the transmitter includes a laser driver and a fiber drive connected to the fiber mirror and the laser.

12. A switch as described in Claim 11 wherein the board includes a frequency filter connected to the receiver and a fiber drop connected to the frequency filter and the mirror.

13. A switch as described in Claim 12 wherein the board includes a frequency control connected to the laser.

14. A method for switching data in a network comprising the steps of:

switching the data with a switch by flowing the data along a first optical path forming a first closed optical loop along which the data flows in a first direction and along a second optical path forming a second closed optical loop along which the data flows in a second direction, the second direction being opposite the first direction; and

inserting a transmitter receiver means which transmits to or receives from the network the data into the first optical path and the second optical path of the switch without disruption of switching of the data by the switch.

15. A method as described in Claim 14 wherein the step of inserting includes the step of inserting the transmitter

receiver means along hinges/slides into the first and second optical paths.

16. A method as described in Claim 15 including the step of removing an integral break/lock from the first and second optical paths along the hinges/slides in which the integral break/lock fits.

17. A method as described in Claim 16 including the step of the spreading apart movable feeds having the hinges/slides and the first and second paths to allow the integral break/lock or the transmitter receiver means to be inserted or removed from the first and second optical paths.

18. A method as described in Claim 17 wherein the spreading step includes the step of moving the feeds apart against springs connected to a housing of the switch and the feeds.

19. A method as described in Claim 18 including the step of releasing the feeds against the transmitter receiver means which are held against the transmitter receiver means by the springs.

20. A method as described in Claim 19 including the step of fitting an unload/load slide disposed on each side of a printed circuit board assembly into the hinge/slide on each feed.

21. A method as described in Claim 20 including the step of aligning locator pins of the board with alignment holes in the housing for proper placement of the board into the housing so a transmitter and a receiver of the board can communicate with the first and second optical paths and the first and second optical paths extend through the board, the transmitter and receiver for transmitting and receiving the data, respectively.

22. A method as described in Claim 21 wherein the aligning step includes the step of aligning a first optical fiber of the first path and a second optical fiber of the second path with a first optical fiber segment of the board and a second optical fiber segment of the board, respectively.

23. A method as described in Claim 22 including the step of placing an optical gel at connection points between the first optical fiber and the second optical fiber segment, and the second optical fiber and the second optical fiber segment.